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10/676,477	09/30/2003	Andrew R. Ferlitsch	10237.33	7527

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EXAMINER
MCLEAN, NEIL R

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/676,477	FERLITSCH, ANDREW R.
	Examiner	**Art Unit**	
	Neil R. McLean	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>18 October 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-27</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-27</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 10/18/2007 have been fully considered but they are

not persuasive.

Regarding Applicant's argument:

    " that Meilstrup teaches printer emulators to be used instead of actual

printers....Therefore, Meilstrup does not teach the recited limitation of "using a virtual

job control interpreter *at the heterogeneous imaging device*" , and wherein the

heterogeneous imaging device *is a physical imaging device*".

Examiners response:

    Meilstrup teaches the use of a virtual job control interpreter at the heterogeneous

imaging device (Column 5, lines 32-36; in particular; "The output post processor may be

configured either <u>on device</u>") and wherein the heterogeneous imaging device is a

physical imaging device (Column 2, lines 53-56 refers to an "<u>actual output device</u>", and

Column 3, lines 7-10 refer to a "<u>post processing device</u>". The Examiner interprets these

aforementioned devices to be <u>printers)</u>.

    Referring to Column 12:

Claim 14: Apparatus according to claim 10 wherein at least one post processor *is a*

printer or a print server.

Regarding Applicant's argument:

"Nothing in Meilstrup teaches a job control device profile used by a virtual job control interpreter for mapping job control commands into one or more internal job control actions compatible with heterogeneous imaging device".

Examiners response:

Meilstrup teaches several protocols (Column 3, lines 53-59) Note: The Examiner perceives applicant's 'job control device profile' to be equivalent to Meilstrup's 'presentation device protocol' because both describe how data is to be presented (e.g., Intelligent Printer Data Stream described in Column 4, line 65 - Column 5, line 12).

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1-27 are rejected under 35 U.S.C. 102(e) as being anticipated by

Meilstrup et al. (US 7,233,404).

Regarding Claim 1:

In a system that includes a heterogeneous imaging device (Column 2, lines 53-56 refers to an "actual output device") and a homogenous imaging device (e.g., virtual printer described in Column 2, lines 44-56), wherein the heterogeneous imaging device is a physical imaging device (Column 3, lines 7-10 refer to a "post processing device"; see printer described in Column 12, Claim 14), a method for enabling the heterogeneous imaging device to operate as a homogeneous device (Column 2, line 67 – Column 3, line 4), the method comprising:

initiating an imaging job (Column 2, lines 45-47) that is compatible with an imaging driver for the homogeneous imaging device for rendering within the system;

Note: The data in Column 6, lines 1-11 inherently needs to be rendered by a driver/software.

using a virtual job control interpreter (see Printer Emulators 125, 130 and 135 in Figure 1) at the heterogeneous imaging device (Column 2, lines 53-56) to render at least a portion of the imaging job, wherein the virtual job control interpreter uses a job control device profile (Column 6, lines 20-25; Column 3, lines 53-59; e.g., Intelligent Printer Data Stream described in Column 4, line 65 - Column 5, line 12) that is compatible with the imaging driver for mapping job control commands (The software

code of the program or device which is described in Column 3, lines 59-67) into one or more internal job control actions compatible with the heterogeneous imaging device (Column 11, lines 1-4; in particular "wherein said plurality of post processors can process the printer emulator data at full speed *consistent with their respective device capabilities*"); and

rendering the at least a portion of the imaging job at the heterogeneous imaging device (Column 5, lines 32-36).

Regarding Claim 2:

A method as recited in claim 1, wherein the heterogeneous imaging device is preloaded with a default job control device profile that is compatible with the imaging driver (Column 6, lines 20-25).

Regarding Claim 3:

A method as recited in claim 1, wherein the job control device profile is downloaded to the heterogeneous imaging device (Column 3, lines 46-48).

Regarding Claim 4:

A method as recited in claim 3, wherein the job control device profile is based on the homogeneous imaging device (Column 5, lines 63-64; and Column 6, lines 2-7).

Regarding Claim 5:

A method as recited in claim 1, wherein the job control device profile is selected at run-time for compatibility with the heterogeneous imaging device (Column 11, lines 1-4; in particular "wherein said plurality of post processors can process the printer emulator data at full speed *consistent with their respective device capabilities*").

Regarding Claim 6:

A method as recited in claim 1, wherein the job control device profile is dynamically set to conform to another imaging device (Column 6, lines 8-11).

Regarding Claim 7:

A method as recited in claim 1, wherein the imaging job is one of:

(i) a print job (Column 2, line 57);

(ii) a scan job;

(iii) a fax job; and

(iv) a document management job.

Note: The claim calls for 'one of'.

Regarding Claim 8:

A method as recited in claim 1, wherein using the virtual job control interpreter comprises:

parsing job control commands from the imaging job (Column 7, lines 29-35 and the software code or device which performs steps 380/385/390 and 395 in Figure 4); and

establishing settings of the heterogeneous imaging device according to requirements specified by the job control commands (Column 7, lines 64-65 and the software code or device which performs step 475 in Figure 4).

Regarding Claim 9:

A method as recited in claim 8, wherein using the virtual job control interpreter further comprises at least one of:

parsing job control commands from the imaging job (Column 7, lines 29-35 and the software code or device which performs step 440 in Figure 4);

parsing page control commands from the imaging job (Column 7, lines 64-65 and the software code or device which performs Printer Emulator in step 475 in figure 4); and

parsing page rendering commands from the imaging job job (Column 7, lines 64-65 and the software code or device which performs Printer Emulator in step 475 in Figure 4).

Regarding Claim 10:

A method as recited in claim 1, wherein using the virtual job control interpreter comprises:

defining one or more capabilities of the heterogeneous imaging device (Column 3, lines 14-21);

defining capability settings associated with each of the one or more capabilities(Column 3, lines 14-21);

mapping a set of job control statements to the capability settings (Column 3, lines 14-21); and

utilizing a common definition interface to specify the capability settings and the one or more capabilities (Column 3, lines 14-21).

Regarding Claim 11:

A method as recited in claim 1, wherein using the virtual job control interpreter comprises:

extracting the job control device profile embedded in the imaging job(Column 5, lines 36-40); and

using a name of the job control device profile and a name of the heterogeneous imaging device to index and retrieve the job control device profile(Column 5, lines 40-43).

Regarding Claim 12:

A method as recited in claim 1, wherein initiating the imaging job is performed at a computer device that includes the imaging driver (Column 6, lines 20-25 and the software code or device which performs step 200 in Figure 2).

Regarding Claim 13:

A homogeneous imaging system comprising:

a computing device (140 in Figure 2) configured to initiate an imaging job,

wherein the (160 and 165 in Figure 1) computing device is coupled to a network

(Column 4, lines 24-26);

the imaging job, wherein the imaging job is compatible with an imaging driver for

a homogenous imaging device (Column 2, lines 45-47);

the homogenous imaging device, wherein the homogenous imaging device is a

physical imaging device coupled to the network; and

a heterogeneous imaging device coupled to the network, wherein the heterogeneous

imaging device is a physical imaging device (Column 2, lines 53-56 refers to an "actual

output device", and Column 3, lines 7-10 refer to a "post processing device". The

Examiner interprets these aforementioned devices to be printers.) includes a virtual job

control interpreter to render at least a portion of the imaging job, and wherein the virtual

job control interpreter (see Printer Emulators 125, 130 and 135 in Figure 1) uses a job

control device profile (Column 6, lines 20-25) that is compatible with the imaging driver

for mapping job control commands (The software code of the program or device which

is described in Column 3, lines 59-67) into one or more internal job control actions

compatible with the heterogeneous imaging device (Column 11, lines 1-4; in particular

"wherein said plurality of post processors can process the printer emulator data at full

speed *consistent with their respective device capabilities*") to render (Column 5,

lines 32-36) the at least a portion of the imaging job at the heterogeneous imaging device.

Regarding Claim 14:

A homogeneous imaging system as recited in claim 13, wherein the heterogeneous imaging device is preloaded with a default job control device profile that is compatible with the imaging driver (Column 6, lines 20-25).

Regarding Claim 15:

A homogeneous imaging system as recited in claim 13, wherein the job control device profile is downloaded to the heterogeneous imaging device (Column 3, lines 46-48).

Regarding Claim 16:

A homogeneous imaging system as recited in claim 13, further comprising an additional homogeneous imaging device coupled to the network (Column 4, lines 24-26), wherein the homogeneous imaging device and the heterogeneous device are at least a part of an imaging cluster (Column 4, lines 29-33) to selectively render imaging jobs.

Regarding Claim17:

A homogeneous imaging system as recited in claim 16, wherein the job control device profile is based on the homogeneous imaging devices (Column 5, lines 63-64; and Column 6, lines 2-7).

Regarding Claim 18:

A homogeneous imaging system as recited in claim 13, wherein the imaging job is one of:

(i) a print job (Column 2, line 57);

(ii) a scan job;

(iii) a fax job; and

(iv) a document management job.

Note: The claim calls for 'one of'.

Regarding Claim 19:

A homogeneous imaging system as recited in claim 13, wherein the computing device includes the imaging driver (Column 6, lines 20-25 and the software code or device which performs step 200 in Figure 2).

Regarding Claim 20:

A computer readable medium storing computer program code means(Column 3, lines 37-41) utilized to implement within a computer system a method for enabling a physical heterogeneous imaging device to operate as a homogeneous device within a

cluster (Column 4, lines 24-26), wherein the computer program code means is comprised of executable code for implementing initiating an imaging job(Column 3, lines 29-36) that is compatible with an imaging driver for a homogenous device for rending within the system (Column 2, lines 45-47);

utilizing a virtual job control interpreter at a heterogeneous imaging device of the system to render at least a portion of the imaging job, wherein the virtual job control interpreter (see Printer Emulators 125, 130 and 135 in Figure 1) uses a job control device profile (Column 4, line 65 – Column 5, line 3) that is compatible with the imaging driver for mapping job control commands (The software code of the program or device which is described in Column 3, lines 59-67) into one or more internal job control actions compatible with the heterogeneous imaging device (Column 11, lines 1-4; in particular "wherein said plurality of post processors can process the printer emulator data at full speed *consistent with their respective device capabilities*"); and

rendering (Column 5, lines 32-36) the at least a portion of the imaging job at the heterogeneous imaging device.

Regarding Claim 21:

A computer readable medium as recited in claim 20, wherein the computer program code means is further comprised of executable code for implementing downloading the job control device profile to the heterogeneous imaging device (Column 3, lines 46-48).

Regarding Claim 22:

A computer readable medium as recited in claim 21, wherein the job control device profile is based on another imaging device (Column 5, lines 63-64; and Column 6, lines 2-7).

Regarding Claim 23:

A computer readable medium as recited in claim 20, wherein the computer program code means is further comprised of executable code for implementing receiving the job control device profile as a selection at run-time for compatibility with the heterogeneous imaging device (Column 3, lines 29-36).

Regarding Claim 24:

A computer readable medium as recited in claim 20, wherein utilizing the virtual job control interpreter comprises:

parsing job control commands from the imaging job (Column 7, lines 29-35 and the software code or device which performs steps 380/385/390 and 395 in Figure 4); and

establishing settings of the heterogeneous imaging device according to requirements specified by the job control commands (Column 7, lines 64-65 and the software code or device which performs step 475 in Figure 4).

Regarding Claim 25:

A computer readable medium as recited in claim 24, wherein utilizing the virtual job control interpreter further comprises at least one of:

parsing job control commands from the imaging job (Column 7, lines 29-35 and the software code or device which performs step 440 in Figure 4);

parsing page control commands from the imaging job (Column 7, lines 64-65 and the software code or device which performs Printer Emulator in step 475 in figure 4); and

parsing page rendering commands from the imaging job (Column 7, lines 64-65 and the software code or device which performs Printer Emulator in step 475 in Figure 4).

Regarding Claim 26:

A computer program product as recited in claim 20, wherein the step for utilizing the virtual job control interpreter comprises:

defining one or more capabilities of the heterogeneous imaging device (Column 3, lines 14-21);

defining capability settings associated with each of the one or more capabilities (Column 3, lines 14-21);

mapping a set of job control statements to the capability settings (Column 3, lines 14-21); and

utilizing a common definition interface to specify the capability settings and the

one or more capabilities (Column 3, lines 14-21).

Regarding Claim 27:

A computer readable medium as recited in claim 20, wherein utilizing the virtual

job control interpreter comprises:

extracting the job control device profile embedded in the imaging job (Column 5,

lines 36-40); and

using a name of the job control device profile and a name of the heterogeneous

imaging device to index and retrieve the job control device profile (Column 5, lines 40-

43).

Conclusion

3.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Buckley et al. (US 6,798,530) teaches a system, method and

graphical user interface that permits a user to define a virtual printer having a selected

set of rendering options and to store that virtual printer for current or later use.

4.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Neil R. McLean whose telephone number is 571.

270.1679. The examiner can normally be reached on Monday through Friday 7:30AM-
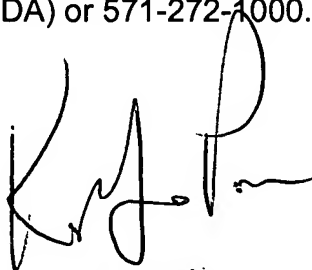
5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, King Y. Poon can be reached on 571.272.7440. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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Neil R. McLean
12/22/2007

KING Y. POON
SUPERVISORY PATENT EXAMINER